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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,651	10/27/2003	Samuel P. Hopkins	FORE-106	3989
7590 Ansel M. Schwartz Suite 304 201 N. Craig Street Pittsburgh, PA 15213		06/07/2007	EXAMINER CHOI, EUNSOOK	
			ART UNIT 2609	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/694,651

Applicant(s)

HOPKINS, SAMUEL P.

Examiner

Eunsook Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) *
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because the following informalities: the phrase "a second node of the second network" (Paragraph 8) is inconsistent. Applicant defines that a first network having a first node and a second node, and a second network having a third node and a fourth node in the disclosure. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 5, 6, 13, and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With regards to claims 5 and 13, Applicant's disclosure for claims 5 and 13 are not readily understood and does not disclose how they are applied to the art in the specification with the best understanding of applicant's invention. The examiner interprets that a third node and a fourth node which can communicate with each other

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but only with the first node or the second node through individual connections through the first port of the first node or the second port of the second node in the applicant's invention is two nodes (or ports) within a network communicating via internet and another network.

Claims 6 and 14 are being rejected as incorporating the deficiencies of a claim upon which it depends and as applied to claims 5 and 13 above.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 3, 4, 10, 11, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Richmond et al. (US PG PUB 20030152067, Referred to herein as Richmond).

With regards to claim 1, Richmond anticipates a first network having a first node and a second node which can communicate with each other; a third node separate and apart from the first network; and a communication portion in communication with the first network and the third node through which the third node is only able to communicate with the first node, but not with the second node through the first node in the applicant's

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invention. Richmond discloses that each users' usage of network resources is controlled, after such user has been authenticated, without using any network resources beyond such user's entry point to the network (Abstract, Richmond). In Richmond's FIG 1B, the biggest cloud is corresponding to the first network, network devices in the network are corresponding to a first and a second nodes, User Device (150) is corresponding to the third node separate and apart from the first network in the applicant's invention, and INTERNET (148) is corresponding to a communication portion in the applicant's invention. Richmond further discloses that a network resource is a resource included as part of a communications network, including network devices, information stored on the network devices and bandwidth available on the transmission medium or mediums of the network. Such network devices may be and/or include any of a variety of types of devices, including, among other things, switching devices, workstations, personal computers, terminals, laptop computers, end stations, servers, gateways, registers, directories, databases, printers, fax machines, telephones, transmitters, receivers, repeaters, and any combinations thereof (Paragraph 5 and Fig. 1B in Richmond).

With regards to claim 10, Richmond anticipates a method for telecommunications comprising the steps of: communicating between a first node of a first network and a second node of the first network; and communicating between a third node separate and apart from the first network through a communication portion and the first node but not the second node through the first node in the applicant's invention. Richmond discloses that each users' usage of network resources is controlled, after such user has

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been authenticated, without using any network resources beyond such user's entry point to the network (Abstract, Richmond). In Richmond's FIG 1B, the biggest cloud including network resource is corresponding to the first network, User Device (150) is corresponding to a third node separate and apart from the first network, and INTERNET (148) is corresponding to a communication portion in the applicant's invention.

Richmond further discloses that a network resource (corresponding to multiple nodes of applicant's first network) is a resource included as part of a communications network, including network devices, information stored on the network devices and bandwidth available on the transmission medium or mediums of the network. Such network devices may be and/or include any of a variety of types of devices, including, among other things, switching devices, workstations, personal computers, terminals, laptop computers, end stations, servers, gateways, registers, directories, databases, printers, fax machines, telephones, transmitters, receivers, repeaters, and any combinations thereof (Paragraph 5 and Fig. 1B in Richmond).

With regards to claim 2, Richmond anticipates the first node has a first port and the second node has a second port, and wherein the third node only communicates with the first port of the first node through the communication portion in the applicant's invention. Richmond discloses a network resource in Fig.1B, which is corresponding to a first node and a second node having ports in applicant's first network (Abstract, Paragraph 5, and Fig.1B in Richmond). Richmond anticipates the third node only communicates with the first port by further disclosing "one technique used to control usage of network resources is to apply user authentication to restrict access to network

resources. Technologies that employ user authentication techniques include, among others, network operating systems, Remote Authentication Dial-In User Service: Port Based Network Access Control, and IEEE 802.1X, defines a standard for providing port-based network access control on a Media Access Control bridge" (Paragraph 27 in Richmond).

With regards to claim 3, Richmond anticipates the communication portion includes the Internet in the applicant's invention from Fig 1B.

With regards to claim 4, Richmond anticipates the third node forms a connection with the first node through an Internet of the communication portion in the applicant's invention. Richmond discloses INTERNET (148) in Fig 1B.

With regards to claim 11, Richmond anticipates the step of communicating between the third node and only with a first port of the first node through the communication portion in the applicant's invention. Richmond anticipates communicating the third node and only with the first port by disclosing "one technique used to control usage of network resources is to apply user authentication to restrict access to network resources. Technologies that employ user authentication techniques include, among others, network operating systems, Remote Authentication Dial-In User Service: Port Based Network Access Control, and IEEE 802.1X, defines a standard for providing port-based network access control on a Media Access Control bridge" (Paragraph 27 in Richmond). Richmond also discloses internet which is the communication portion in the applicant's invention in Fig 1B.

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With regards to claim 12, Richmond anticipates communicating through an Internet of the communication portion in the applicant's invention by disclosing internet in Fig 1B.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richmond et al. (US PG PUB 20030152067) and in view of Border et al. (US PG PUB 20030147403, referred to herein as Border).

With regards to claim 7, Richmond teaches a first network having a first node having a first port, a second node having a second port; a second network having a third node, the third node having a connection with the port of the first node through the Internet and the server using gateway methodology so the second node cannot be accessed by the third node through the first node in the applicant's invention. Richmond discloses that each users' usage of network resources is controlled, after such user has been authenticated, without using any network resources beyond such user's entry point to the network (Abstract, Richmond). In Richmond's FIG 1B, the biggest cloud including network resource is corresponding to the first network, User Device (150) is corresponding to a third node in the second network, and INTERNET (148) is

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corresponding to the internet in the applicant's invention. Richmond further discloses that a network resource (corresponding to multiple nodes having ports of applicant's first network) is a resource included as part of a communications network, including network devices, information stored on the network devices and bandwidth available on the transmission medium or mediums of the network. Such network devices may be and/or include any of a variety of types of devices, including, among other things, switching devices, workstations, personal computers, terminals, laptop computers, end stations, servers, gateways, registers, directories, databases, printers, fax machines, telephones, transmitters, receivers, repeaters, and any combinations thereof (Paragraph 5 and Fig. 1B in Richmond).

However, Richmond is silent on a fourth node in a second network, a primary server and client server, and connecting nodes via the client server and through the Internet and the primary server. Border, which is in the same field of endeavor, discloses an approach for providing secure communication services (Abstract in Border). Border further discloses a secure tunnel from a source node over an access network, such as a satellite network, to a destination node, wherein the nodes are external to the network (Abstract in Border). A satellite network is a second network with multiple nodes as in applicant's invention. Border further discloses securing tunnel via VPN server, internet, and client application in Fig. 9. "A VPN tunnel is established between the terminal 305(VPN peer) and the VPN server 315. The client application within the host 301 generates traffic over the local network 303 to the terminal 305, which compresses and encrypts the traffic based on the PEP and VPN functions. This

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encrypted traffic is transported across the access network 307 to the Internet 311 via the gateway 309. At this point, the VPN server 315 decrypts the traffic from the host 301 and forwards the packets to the PEP gateway 317, which communicates with the intranet 319 on which the destination server 321 resides" (Paragraph 144, Border). It would have been obvious to one having ordinary skill in the art at the time of invention was made for the third node to have a connection with the port of the first node via the client server and through the Internet and the primary server using gateway methodology in order to establish the secure tunnel that traverses the network (Abstract in Border).

With regards to claim 8, Border teaches the client server encrypts data from the third node on the connection and the primary server decrypts data for the first node in the applicant's invention by disclosing "The client application within the host 301 generates traffic over the local network 303 to the terminal 305, which compresses and encrypts the traffic based on the PEP and VPN functions. This encrypted traffic is transported across the access network 307 to the Internet 311 via the gateway 309. At this point, the VPN server 315 decrypts the traffic from the host 301 and forwards the packets to the PEP gateway 317, which communicates with the intranet 319 on which the destination server 321 resides" (Paragraph 144, Border).

With regards to claim 9, Border teaches the first network monitors and manages the second network in the applicant's invention by disclosing various examples of monitoring and managing network in "Automatic Tuning To Network Characteristics". An example with mobile host discloses round trip time can be estimated at connection start

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up or constantly monitored throughout the connection. Throughput can be estimated by the user or measured and then parameters adjusted. Another example with satellite network (a fairly static number of hosts or users at each end point) the PEP parameters can be calculated and statically configured. That is, since the channel throughput and approximate number of users is known, the expected number of connections can be estimated and the window size can be calculated and configured. The network latency is known and so the ACK delay and retransmission interval can be calculated (Paragraph 77-79, Border).

8. Claims 5, 6, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richmond et al. (US PG PUB 20030152067) and in view of Sanderson et al. (US PG PUB 20040223499, referred to herein as Sanderson).

With regards to claims 5 and 13, Richmond does not explicitly teach two nodes within a network communicating via internet and another communication network in the applicant's invention as interpreted by the examiner. Sanderson, which is in the same field of endeavor, discloses "Where IP telephones (using Voice over IP or conventional telephones run through IP adapters) are employed, a common architecture is to couple an individual's computer 606 to the data VLAN 604 via the IP telephone 608, which is hooked up to an Ethernet network. Voice traffic may be placed onto an auxiliary IEEE 802.1Q VLAN by the IP telephone 608. The voice traffic arrives at the CE router 610 on an Ethernet logical interface 612 assigned to the voice VLAN (Fig. 6 and Paragraph 72, Sanderson). It would have been obvious to one having ordinary skill in the art at the

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time of invention was made for two nodes within a network communicating via internet and another communication network in order to reduce the costs of building VPNs for these services because a common infrastructure could be shared. (Paragraph 71 in Sanderson).

With regards to claims 6 and 14, Sanderson teaches first network monitors and manages the second network in the applicant's invention by disclosing "One or more management devices 426 may also be connected to the gateway switch 412. The management devices 426 may be used for managing the P routers 406, and the PE routers 402. Managing the P routers 406 and PE routers 402 may include, inter alia, configuring the routers, maintaining the routers, administering the routers, fault and performance monitoring and/or debugging the routers. The management devices 426 may also be used for managing the CE routers connected to the various PE routers" (Fig. 4 and paragraph 58, Sanderson).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eunsook Choi whose telephone number is 571-270-1822. The examiner can normally be reached on Monday-Friday 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Garber can be reached on 571-272-2194. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eunsook Choi



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